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Certificate of Analysis and Data Sheet

Recombinant Rat Interleukin-1 beta

Catalog No.	**Source:**
228-10849	*Escherichia Coli.*

Synonyms
Catabolin, Lymphocyte-activating factor (LAF), Endogenous Pyrogen (EP), Leukocyte Endogenous Mediator (LEM), Mononuclear Cell Factor (MCF), IL1F2, IL-1 beta.

Introduction
Interleukin-1b is produced by activated macrophages, IL-1B stimulates thymocyte proliferation by inducing il-2 release, b-cell maturation and proliferation, and fibroblast growth factor activity. IL1B proteins are involved in the inflammatory response, being identified as endogenous pyrogens, and are reported to stimulate the release of prostaglandin and collagenase from synovial cells.

Description
Interleukin-1b Rat Recombinant produced in E.Coli is a non-glycosylated, Polypeptide chain containing 152 amino acids and having a molecular mass of 17.3 kDa.
The IL-1b is purified by proprietary chromatographic techniques.

Physical Appearance
Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation
The protein was lyophilized without any additives.

Solubility
It is recommended to reconstitute the lyophilized Interleukin 1b in sterile 18MΩ-cm H_2O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

Stability
Lyophilized Interleukin-1b although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IL1b should be stored at 4°C between 2-7 days and for future use below -18°C.
For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).
Please prevent freeze-thaw cycles.

Purity
Greater than 95.0% as determined by SDS-PAGE.

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Amino acid sequence

VPIRQLHCRLRDEQQKCLVLSDPCELKALHLNGQNISQQVVFSMSFVQGETSND
KIPVALGLKGLNLYLSCVMKDGTPTLQLESVDPKQYPKKKMEKRFVFNKIEVKT
KVEFESAQFPNWYISTSQAEHRPVFLGNSNGRDIVDFTMEPVSS.

Biological Activity

The ED50 range= 0.2-0.5 ng/ml, determined by the dose dependent proliferation of mouse D10S cells.

Protein content

Protein quantitation was carried out by two independent methods
1. UV spectroscopy at 280 nm using the absorbency value of 0.558 as the extinction coefficient for a 0.1% (1mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics).
2. Analysis by RP-HPLC, using a standard solution of IL-1b as a Reference Standard.